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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/878,311	06/12/2001	Kenji Okinaka	1417-352	2128

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NIXON & VANDERHYE, PC
1100 N GLEBE ROAD
8TH FLOOR
ARLINGTON, VA 22201-4714

EXAMINER

SHEEHAN, JOHN P

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 03/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	09/878,311	OKINAKA ET AL.	
	Examiner	Art Unit	
	John P. Sheehan	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-12, 15 and 16 is/are pending in the application.
- 4a) Of the above claim(s) 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-12 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. The Examiner acknowledges applicants request to rejoin claim 15 once the elected product claims are in condition for allowance. Applicants are reminded that in order for process claims to be rejoined with allowed product claims the process claims must either depend from or otherwise include all the limitations of the allowable product claims, MPEP 821.04.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 9 to 12 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

I. In claim 9, lines 5, 6 and 7; claim 10, lines 3 and 4; claim 12, lines 5, 6, and 7; and claim 16, lines 6, 7 and 8 the meaning of the phrase, "based on whole Fe" is not clear. What does this phrase mean? This phrase is not defined in the specification or claims therefore those skilled in the art would not understand what is claimed even when the claims are read in light of the specification.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9 to 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okinaka et al. (Okinaka, EPO Document No. 0 940 369 A2 cited in the IDS submitted February 25, 2002, it is noted that in the previous Office action the Examiner referred to this reference as Kenji et al., the Examiner will now and in the future refer to the reference as Okinaka).

Okinaka teaches spindle shaped magnetic metal particles having an average major axial diameter of 0.05 to 0.18 μm (page 8, lines 19 and 20), an aspect ratio of from 4:1 to 9:1 (page 8, lines 22 and 23), a size distribution (standard deviation/average major axial diameter) of not more than 0.20 (page 8, lines 20 and 21), a crystallite size D_{110} of 13.0 to 17.0 nanometers (130 to 170 μm) (page 8, lines 34 and 35), a cobalt content of from 1 to 20 atomic percent, an aluminum content of from 1 to 15 atomic percent, a rare earth element content of from 1 to 15 atomic percent (page 8, paragraph 0082), a coercive force of from 1,800 to 2,500 Oe (143.2 to 198.9 A/m) (page 8, paragraph 0083) and an oxidation stability of saturation (ΔOS) of not more than 10% (page 8, paragraph 0085). Each of these powder characteristics and alloy proportions overlap the powder characteristic and proportions recited in the instant claims. Okinaka teaches that the particles have a BET surface area of 40 to 60 m^2/g (page 8, paragraph

0081), which is the same as the BET surface area recited in applicants claim 11. Kenji teaches that the disclosed metal particles are used in magnetic recording media (page 9, paragraph 0093) as recited in applicants' claim 16.

The claims and Okinaka differ in that Okinaka (1) does not teach the exact same powder characteristics and alloy proportions as recited in the instant claims; (2) Okinaka is silent with respect to an atomic ratio of Al to Co; and (3) Kenji is silent with respect to the ignition temperature of the disclosed metal particles.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the spindle shaped magnetic metal particles taught by Okinaka overlap applicants' claimed alloy and therefore are considered to establish a prima facie case of obviousness, In re Peterson 65 USPQ2d 1379 (CAFC 2003, In re Geisler 43 USPQ2d 1365 (Fed. Cir. 1997); In re Woodruff, 16 USPQ2d 1934 (CCPA 1976); In re Malagari, 182 USPQ 549, 553 (CCPA 1974) and MPEP 2144.05.

"The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages", In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Further, although Okinaka does not teach an Al to Co ratio, the proportions of Al and Co taught by Okinaka overlap applicants' claimed Al and Co proportions and thus encompass the Al to Co ratio recited in the instant claims.

Regarding the ignition temperature, it is the Examiner's position that in view of the similarity in particle composition and the fact that all of the other properties of

Okinaka's particles and applicants' particles are the same or overlap, one of ordinary skill in that art would expect that Okinaka's particles would have an ignition temperature that would at least overlap the ignition temperature recited in the instant claims, In re Best, 195 USPQ, 430 and MPEP 2112.01.

"Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, In re Best, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' In re Spada, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best, 195 USPQ 430, 433 (CCPA 1977)." see MPEP2112.01.

Response to Arguments

6. Applicant's arguments filed December 17, 2003 have been fully considered but they are not persuasive.

Applicants argue that, (1) "in Okinaka, there is no description or suggestion of an atomic ratio of Al to Co of from more than 2 to 4 as required by applicants' claims' and that this is a key aspect of applicants' invention"; (2) that in Okinaka there is no description nor suggestion of controlling the coercive force to be within the range of 111.4 to 143.2 kA/m and attaining good oxidation stability with a an average major axial diameter as small as 0.05 to 0.15 microns. Applicants attempt to support their argument by citing data in Okinaka. The Examiner is not persuaded.

Although Okinaka does not teach an Al to Co ratio, the proportions of Al and Co taught by Okinaka overlap applicants' claimed Al and Co proportions and thus encompass the Al to Co ratio recited in the instant claims. Regarding coercive force, it is pointed out that Okinaka teaches a coercive force range of 1,800 to 2,500 Oe or 143.2 to 198.9 kA/m (Okinaka, paragraph 0083) which overlaps the claimed coercive force range of 111.4 to 143.2 kA/m or 1,400 to 1,800 Oe, that is, the coercive force of applicants' and Okinaka's powders overlap at 143.2 kA/m (1,800 Oe).

Regarding oxidation stability and the average major axial diameter, it is the Examiner's position that the oxidation stability of applicants' and Okinaka's powder is exactly the same, "not more than 10%", (see applicants' claim 9, lines 8 and 9 and Okinaka's paragraph 0085) while Okinaka's average major axial diameter of 0.05 to 0.18 microns (page 8, lines 19 and 20) completely encompasses applicants' claimed major axial diameter of 0.05 to 0.15 microns. Actually, Okinaka's and applicants' claimed average major axial diameters are almost exactly the same.

Regarding the data from Okinaka cited by applicants in support of their position it is the Examiner's position that;

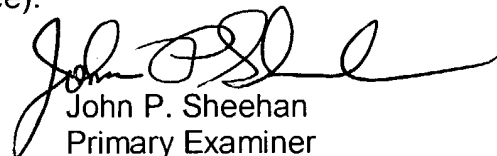
- (1) Applicants have not presented any examples of the instant invention in comparison to the cited Okinaka data to support their allegation that the atomic ratio of Al to Co of more than 2 to 4 is a key aspect that is, a critical feature of the instant invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John P. Sheehan
Primary Examiner
Art Unit 1742

jps